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February 23, 2006

TO: VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

FROM: JAMES M. OSBORNE - EXTENSION AGENT, ANR

This letter is a response to the January meeting held in Galax concerning the Chestnut Creek Watershed TMDL Improvement Plan. I attended the meeting that night and was very concerned about some of the suggested (scenarios as they called them) plans for improvement. I have a few issues with the report and plan for improvement.

1.) My concern centers around the undue pressure the improvement plan will put on the farmers in Chestnut Creek. It was suggested that fencing of livestock out of the creeks was going to provide the big impact of success in cleaning up the creek. I disagree with that suggestion, especially since livestock was NOT the major culprit and contributor of fecal bacteria. On page 2-12 of your report, the amount of fecal bacteria that was suggested to come from livestock at the two testing sites was the lowest of the four sources. Yet, the suggestion was to fence off 75% of the creeks, while doing nothing to address the wildlife contribution (which was twice the amount of livestock in both cases). Also, what was going to be the plan to deal with the pet sources of fecal bacteria (again which were higher than the livestock)? It clearly appears to me that you have chosen the 'scenario" that is easiest from your position to deal with and force corrective action, since no where did I see a plan to address the wildlife deal. Point: You can certainly reduce the livestock influence of fecal bacteria by installing water troughs, without fencing the creek. This has been shown to be the case more than once. I've spent 14 years of my career to help prove this point through field-days, etc.

2.) It was also suggested that fencing the creeks would stop the erosion problems and thus sediment. I can take you to several places along the creek that clearly show the sediment from the banks eroding away is the result of the flood waters on crooked creeks and would have nothing to do with livestock at all.

3.) You used the South Fork of the Holston River as your comparison model since they were very similar. I lived on the South Fork of the Holston River for 14 years and about the only thing similar about it and Chestnut Creek is its size. The South Fork of the Holston River has very little influence from housing, industry, and none from a city. However, both streams do have a heavy influence from the presence of livestock.

4.) The final point references to the improvements that have already been documented to have taken place in the Chestnut Creek Watershed. Look at the reported findings 10

years ago and compare it to now. This difference is significant. I think the degree of your “corrective actions” is forgetting about the major improvements that have already taken place.

I hope you will take these comments under advisement before any plan is submitted for approval.

March 9, 2006

Mr. James M. Osborne, Extension Agent, ANR
Grayson County Extension Office
P. O. Box 129
Independence, Virginia 24348

Re: Response to Comments on the Draft Chestnut Creek TMDL Report

Dear Mr. Osborne:

Thank you for your comments about the Draft Chestnut Creek TMDL Report. In your letter you question bacteria reduction scenario recommended in the TMDL study and question the example practices the TMDL report identified as methods that could reduce the bacteria and sedimentation problems. You voice a concern that the study use of South Fork Holston River as a reference watershed is inadequate to characterize the conditions in Chestnut Creek. Your comments are addressed below.

Bacteria Source Tracking (BST) results at two stations in the watershed indicate the presence of human, pet, livestock and wildlife sources. The BST results reported in the TMDL report should not be interpreted or used to mean those exact amounts are present from each source. Rather, it confirms the presence of each source. The TMDL model based reductions on the acres of each land use present in Chestnut Creek. The TMDL report discusses practices that have been demonstrated in general to reduce sediment and bacteria sources in other watersheds. The methods chosen in Chestnut Creek will be up to the stakeholders who participate in the Implementation Plan phase of the TMDL process. With your experience in the watershed, your input into developing a roadmap to improve water quality will be invaluable.

DEQ addresses the wildlife component in Section 11.3.5 of the TMDL Report. Sources other than wildlife will be first targeted for reductions because they are more readily controlled. EPA and Virginia are not proposing the elimination of wildlife to allow for the attainment of water quality standards.

MapTech and DEQ reviewed available reference watersheds and feel the use of South Fork Holston River is an appropriate choice. The urban component in Chestnut Creek represents about 6.5% of the land use and the component in South Fork Holston River represents about 1.5% which is a difference of 5%. This is not a significant difference. The sediment delivery

rates to South Fork Holston River are similar to those in Chestnut Creek. The similarity results in an ability to predict how much sediment the stream can assimilate and meet the aquatic life use. It allows a target endpoint for modeling the sediments in Chestnut Creek.

Thank you for your comments on the TMDL study. The next step in the TMDL process is to finalize the TMDL study and send it to EPA for approval. Based on comments received during the comment period, an additional section has been added to Chapter 11 that discusses the BMP efforts that are already in place. Once EPA approves the study, the State Water Control Board will adopt the TMDL tables ES1 and ES2 from the Chestnut Creek TMDL Report into the Water Quality Management Plan Regulation. We will inform you of this additional opportunity to comment.

Sincerely,

Nancy T. Norton, P.E.
SWRO-TMDL Coordinator

CITY OF GALAX

TELEPHONE & TDD
276-236-5773
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February 27, 2006

Ms. Nancy Norton
Department of Environmental Quality
P.O. Box 1688
Abingdon, VA 24212-1688

Re: DRAFT – Total Maximum Daily Load Development for Chestnut Creek

Dear Ms. Norton:

This letter is in response to the above referenced draft Total Maximum Daily Load (TMDL) development study for the Chestnut Creek watershed, which includes the City of Galax, Carroll and Grayson Counties.

It is not the intent of these comments or questions to pass judgment on whether the TMDL study meets the criteria established by contract between the Department of Environmental Quality, The Department of Conservation and Natural Resources and MapTech, Incorporated. The City administration simply does not know what was to be included in the TMDL study. However, it would have been helpful if the TMDL study, in addition to determining the TMDL allocations, had provided more current information on actual stream conditions, as they existed in 2005 to assist with development of the next phase of work, namely the TMDL Implementation Plan.

The highly scientific and technical nature of the TMDL study, as it is presented, has made it difficult to provide comments and questions on the Study within the allotted public comment period of 30-days. The information provided in the Study is very difficult for anyone with less than a doctoral degree in environmental science to comprehend. The general public would seem to have great difficulty with understanding the meaning or possible implications of this study as it is presented. Therefore, these comments basically question why so much effort was placed in computer modeling that was based almost entirely on obsolete data and why the sample data that indicates significant improvement in water quality at several locations along the Chestnut Creek was not given more consideration and weight in determining the Total Maximum Daily Load allowances.

The City of Galax administration officials are and have been concerned about the water quality of Chestnut Creek for a long time and can provide numerous examples of significant and costly efforts that have been undertaken to improve water quality in Chestnut Creek since the early 1990's through last year. It is the opinion of the City of Galax administration that the draft TMDL development study falls well short of

111 EAST GRAYSON STREET • GALAX VIRGINIA 24333

accurately and fairly representing the current conditions of Chestnut Creek. This position has been arrived at due to the very limited number and locations of sample collection of current bacteria and benthic data from Chestnut Creek. Also, it is questionable how the heavy reliance upon hydraulic computer modeling, using sample data collected from 1989 through 1998, would allow anyone to draw conclusions or claim to fully understand the current stream conditions that exist in the year 2006.

The City has implemented significant changes in the operation of its water treatment plant and wastewater treatment plant that have resulted in the improvement of water quality in Chestnut Creek. Most of these improvements were not included in the Study or barely mentioned at all and apparently not even considered or used in the calibration of the hydraulic computer model. The heavy reliance on obsolete and incomplete data largely, if not entirely, gathered from the Department of Environmental Quality records has led the City to question the validity of this TMDL study. Computer modeling can be a very useful tool for compiling data and producing graphs as visual aids for observing patterns in the data, however the data output is only as reliable as the data input and this is where the City has questions on the TMDL study. The City believes that a more recent thorough sampling and detailed analysis of Chestnut Creek in areas of questionable water quality would have yielded better results from which to draw conclusions about what actions are required to obtain the goals established by the Clean Water Act TMDL program.

The TMDL study failed to accurately represent or allow for the improved current conditions within Chestnut Creek due to actions by the City to improve water quality over the 1989-2005 timeframe that samples were collected and used as input data for the modeling software to develop the TMDL allocations. While the Study does state that there have been improvements to the water quality within Chestnut Creek it does not seem to elaborate on, allow for in the computer modeling or address the reasons for this improvement. The City administration questions not only the results of the Study, but also its value for making regulatory decisions that may unnecessarily impose burdens on the City and its citizens, commercial and industrial enterprises as well as agricultural and other enterprises located in the adjacent counties.

No input, or at most very little input, was solicited from watershed stakeholders in preparation of the TMDL study. The main contribution provided by stakeholders occurred, during the first public hearing in July of 2005, when the engineers developing the Study presented data on the number of pets, livestock, wildlife and the human population in the watershed and asked for confirmation of their estimated numbers. The City of Galax was simply asked to provide a copy of the latest Comprehensive Plan. This City of Galax Comprehensive Plan was issued in 1996 and may have relatively accurate information on land use and development trends from the early 1990's, but would seem to be of little value at predicting the actual conditions of 2006 or even further into the future when development of the TMDL Implementation Plan gets underway. The Comprehensive Plan anticipated a steady increase in industrial land use and employment for the years up through 2016. As more recent information shows, this trend is actually heading in the opposite direction. This is evidenced by the fact that a

significant number of industrial facilities along the banks of Chestnut Creek have at this time closed down or have greatly curtailed operations to the point that additional closings may occur.

The following bullet points are offered as details of the City's perspective of the draft TMDL study that have given rise to questions about the usefulness of the study when it comes time to develop the TMDL Implementation Plan.

1. Benefits of the actions taken by the City of Galax to improve Chestnut Creek water quality are not addressed.

The TMDL study states, on page 2-13 in Section 2.6.2.2, that fecal coliform concentrations in Chestnut Creek are trending downward. An explanation of this trend is not offered. A likely explanation might be that the downward trend is due to the actions taken by the City detailed in this letter. Could this downward trend mean that the goals of the TMDL program have already been met? It is impossible to say whether or not this downward trend is attributable to actions taken by the City of Galax, since the Study does not address current conditions other than by computer modeling. Nor, for that matter, does the TMDL study attempt to predict the future consequences of the downward trend which, if it continues, suggests in no uncertain terms that the goals of the TMDL program as they relate to fecal coliform impairments will be met without the need to impose TMDL-based waste load allocations.

There is apparently no mention or note that the City has made significant improvements to its sewer collection system, thereby reducing inflow/infiltration rates and more importantly sewer collection system overflows to Chestnut Creek. A large majority of these improvements have occurred since the fecal coliform sample data used for computer modeling, calibration and validation were collected.

Another improvement to Chestnut Creek water quality was the relocation of the Galax Water Treatment Plant Sedimentation Basin Decant Discharge from Chestnut Creek to the City sewer collection system. The Sedimentation Basin discharge was allowed under VPDES permit #VA 0052680. The discharge was redirected to the City sewer collection system in April of the year 2000 for treatment at the Galax Wastewater Treatment Facility.

The City has funded $50,000.00 since 2003 under a Supplemental Environmental Project (SEP) agreement in cooperation with the New River Soil and Water Conservation District for the purposes of improving Chestnut Creek water quality above the Galax Water Treatment Plant raw water intake. This funding was to provide 75% cost-share assistance with a 25% landowner contribution to implement Agricultural Best Management Practices such as 1.) Livestock off-stream water facilities, 2.) Fencing off livestock from wetland areas, 3.) Providing storm water diversion/run-off management, 4.) Livestock heavy use area protection and 5.) Providing culverts at livestock stream crossings. The implementation of these Best Management Practices

has allowed for the reduction of impacts to Chestnut Creek water quality resulting from farming and pasturing operations.

The TMDL study fails to acknowledge these ongoing efforts, and investments outside of the TMDL process that have led to and are likely to continue providing significant improvements in Chestnut Creek water quality. The omission of this important information concerning Chestnut Creek water quality goes to point out that the results of the TMDL study do not reflect the current state of affairs in the Chestnut Creek watershed.

2. Consequences of removal of the Galax Wastewater Treatment Facility (GWTF) treated effluent Outfall location from Chestnut Creek are not adequately addressed.

Perhaps the most significant improvement to water quality in Chestnut Creek was realized by the relocation of the GWTF Effluent Outfall from Chestnut Creek to the New River. The TMDL study seems to just briefly mention (see Table 3.2) that the GWTF Outfall was relocated from Chestnut Creek to the New River in April of 1991.

The sampling dates presented in the study, reveal that possibly as many as half of these sample data points, used for purposes of modeling fecal coliform impairments, were taken prior to the removal of the Galax Wastewater Treatment Facility treated effluent discharge from Chestnut Creek.

3. The modeling process for fecal coliform concentrations in Chestnut Creek is generic and not site specific.

The actual number of Chestnut Creek sampling events performed by the engineering firm developing the TMDL study was limited to only a very few samples from two stations during 2005. These sampling events were mostly for the purposes of enumerating E. Coli levels and performing genetic tracing studies to identify likely sources.

The fecal coliform database used in the hydraulic modeling is obsolete and incomplete. The Study indicates in Section 4.7.3 that the hydraulic computer model was calibrated using data collected from 1989 through 1993. This timeframe encompasses the date that the GWTF Outfall was relocated to the New River.

Computer models are powerful tools for making sense out of limited data. However, they are prone to yield erroneous results if not provided with contemporary input data. By using obsolete data, by failing to update the data base to reflect current conditions, by failing to distinguish between the before and after effects of Outfall relocation, by failing to account for other actions taken by the City of Galax to reduce its impact on Chestnut Creek water quality, the results of the modeling process are of questionable value for drawing meaningful or useful conclusions for the purposes of regulatory decision-making.

4. The health of Chestnut Creek has been improving over time, as measured by benthic macro invertebrate surveys.

The results of a total of 20 benthic surveys performed at various stations along Chestnut Creek over the timeframe of 1992 through 2004 are cited in Tables 6.2 through 6.5 of the TMDL study. To the casual observer, as well as to any qualified scientist, it is immediately evident from the data presented in these tables that the overall health of Chestnut Creek has improved from severely impaired at the beginning of the timeframe, to moderately impaired at intermediate points within the timeframe, to not impaired at the end of the timeframe. As appears to be the case in regards to fecal coliform impairments, could it be that the overall goals of the TMDL program, as they relate to benthic community habitat impairments, have already been met? The answer is not given in the TMDL study, due to the fact that the Study focuses on past conditions, not present or future conditions.

5. The information provided under Section 3.2 Assessment of Point Sources is very limited

The Assessment of Point Sources (Section 3.2) provides a single paragraph with one Table of information providing locations of Department of Environmental Quality permitted discharges. In stark contrast to the point source assessment is the Assessment of Nonpoint Sources (Section 3.3), which is several pages long with ten Tables, providing information that goes into a fair amount of detail defining the various non-point sources and the problems with water quality that they are creating.

Perhaps one of the most surprising omissions from this point source assessment is the point source discharge permitted into Chestnut Creek by the old Allied Chemical-Gossen Mine site now owned by Honeywell International, Incorporated. Additional information on this mine site is included in the VPDES Permitted Discharges in the Chestnut Creek Watershed (Section 6.6). This section of the Study provides historical background information and seems to indicate that the discharge is not causing pollution problems in Chestnut Creek. The City administration does not know if this interpretation is correct, but the visual perception of the effects of this discharge is quite striking.

The Allied Chemical-Gossen mine discharge produces what the City believes to be an iron bacteria algae bloom, along the small-unnamed tributary to Chestnut Creek, which during summer months typically extends fully one-fourth of the way across Chestnut Creek and continues to be plainly evident, further down Chestnut Creek. The iron algae bloom exhibits a bright orange color coating the stream bottom and would seem to prevent the establishment of benthic macro invertebrate aquatic life in this area.

Nevertheless, the bright orange color of the streambed is in an area where the New River Trail State Park is adjacent to Chestnut Creek and is plainly evident to the multitude of tourists that use the Park for recreational purposes. The orange coloring of the streambed reflects poorly on the local community and the Park, which may leave Out-of-State guests and even In-State guests to the New River Trail State Park wondering what this unnatural looking condition is and why it is allowed to exist.

6. The selection of the South Fork of the Holston River as the computer model "reference stream" is questionable as to its appropriateness for establishing TMDL allocations for the Chestnut Creek watershed.

The selection of the South Fork of the Holston River watershed as the computer model reference watershed for Chestnut Creek is questionable science and the TMDL fails to explain or properly justify the reasons for selecting this stream that happens to be a wild trout stream flowing out of a national forest. Anyone would be hard pressed to find another stream in the State of Virginia with better water quality due to its geographical location and the conditions of land use within its watershed. From information presented in Table 8.1 of the Study, it is obvious that there are many dramatic differences between the land use characteristics of the Chestnut Creek watershed, and those of any of the other watersheds taken into consideration as reference watersheds. Simply stated, the Chestnut Creek lies in an entirely characteristically different watershed basin. Unlike any of the other watershed streams, Chestnut Creek supports and contributes to the vitality of a City. Commercial and residential land uses far exceed those of any of the other watersheds. Except for the Middle Fork of the Holston River, Chestnut Creek also supports and contributes to considerably more crop and pasturing land uses than any of the other watersheds. In short, implementation of a TMDL Plan to make the Chestnut Creek watershed look and behave more like the South Fork of the Holston River watershed would require relocation of the City, its citizens and its neighbors. As stated in the TMDL study the EPA will require a reasonable assurance that the waste load allocations will be met. The choice of such a pristine and natural stream as a reference for developing Total Maximum Daily Load allocations may be unattainable. However, it is possible that through the failure to include a substantial sampling of the existing conditions and including an analysis of the effect of ongoing improvements to the Chestnut Creek water quality the TMDL study may have overlooked the possibility that the EPA Clean Water Act goals of the TMDL program may have been already attained.

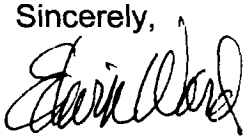
In closing, among other waters in the Commonwealth of Virginia, Chestnut Creek may be unique in that major changes have occurred in the characteristics of the watershed since Chestnut Creek was first named as impaired water under Section 303(d) of the Clean Water Act. Significant steps have been taken by the City to reduce inflow and infiltration rates to its sanitary sewer collection system, and to reduce the frequency and magnitude of sewer system overflows. Also, water quality benefits relating to funding the implementation of Best Management Practices to reduce impacts on Chestnut Creek water quality attributable to surface water runoff from previously

uncontrolled agricultural activities at upstream locations have been achieved. These improvements were not considered and made part of the development of TMDL allocations.

Due to the fact that the draft TMDL study report of January 9, 2006 relies mainly on data collected prior to the above-mentioned changes in watershed characteristics, it is the opinion of the City of Galax that the conclusions reached in the draft report are obsolete, and not germane to nor consistent with either the original intent or purpose of the federally-mandated TMDL program. It is the City's position that the best interests of all parties involved, the Commonwealth of Virginia included, would be best served by updating the TMDL study to more accurately reflect the current conditions of Chestnut Creek, not its past conditions.

Returning impaired waters to a quality that allows recreational and other uses is an important endeavor that should be and is presently being undertaken in the Chestnut Creek watershed. Thank you for the opportunity to review and comment on such an important document as the TMDL development study.

Sincerely,



Edwin Ward, P.E.
City Engineer

Cc: Mr. Dan Campbell, City Manager
Ms. Theresa Carter, Department of Conservation and Recreation

March 9, 2006

Mr. Edwin Ward, P.E. City Engineer
City of Galax
111 East Grayson Street
Galax, Virginia 24333

Re: Response to Comments on the Draft Chestnut Creek TMDL Report

Dear Mr. Ward:

Thank you for your comments about the Draft Chestnut Creek TMDL Report. Your letter reflects a concern that the study is inadequate in characterizing the conditions in Chestnut Creek. You further recommend that the TMDL be updated to reflect current conditions in the watershed. Based on your comments, I believe that you have misunderstood the purpose and requirements of the TMDL study.

The TMDL study is meant to provide baseline information which identifies the sources of impairment and the causes of impairment. Towards this end, the watershed must be modeled to reflect the conditions at the time the stream was identified as impaired. This is the reason the TMDL model used 1990's era hydrology and water quality data. However, water quality monitoring data collected recently was also used in this effort.

The Environmental Protection Agency along with the scientific community recognizes that corrective actions do not instantly correspond to pollutant reductions. Measurable improvements may lag anywhere between five and ten years. The TMDL represents a snapshot of time focusing on the first moment we measured violations in the stream. During the Implementation Study site specific information will be considered.

Some of the Galax and New River Soil and Water Conservation efforts to improve water quality that you list were not provided to DEQ or MapTech during the TMDL study despite our requests for information. A description of those efforts will be added to the implementation chapter as Section 11.1. In terms of reaching the TMDL goals, Galax may be well on the way to reductions of bacteria and total suspended solids due to those efforts. Through watershed monitoring we hope to document these improvements.

Removing the Galax WWTP outfall to New River was addressed in the document and we are aware of the efforts the City has made to improve the integrity of the collection system and eliminate the frequent overflows of raw sewage from the system. These efforts have made a difference in the magnitude of the bacteria violations. We still need reductions but they are more feasible given the improvements that have already occurred. We encourage the City to continue with collection system monitoring and maintenance and use the TMDL Report in any grant or loan applications the City may pursue in this effort. The fact that Chestnut Creek has a TMDL impairment may cause the City applications to rank higher if they are proposing activities to reduce pollutant loads to the stream.

The benthic health in Chestnut Creek is indeed improving. However, the TMDL table 6.3, incorrectly assigned slight impairment ratings to samples in April 1995, June 1997 and June 2004. The DEQ biologist ranked these three samples as moderately impaired samples. Since we still have an impairment at the biological monitoring stations, we must complete the TMDL process; continue to measure our successes and when each biological monitoring station is sampled twice with no impairment noted, then we can remove Chestnut Creek from the impaired list. The VPDES permit for the Allied Chemical Gossen Mine site requires a reduction of the iron discharge by 99.99%. Corrective actions on this site have resulted in measurable improvements at the biological monitoring station below the Mine, from its early severely impaired rating to a moderately to slightly impaired rating. DEQ continues to assess permit requirements and makes inspection visits to the site.

Finally, in your letter you comment on the use of South Fork Holston River as a reference watershed. This was a reasonable choice as a reference watershed. We do not expect Chestnut Creek to look or behave like South Fork Holston River; rather, the sediment delivery rates to South Fork are similar to those in Chestnut Creek. The similarity results in an ability to predict how much sediment the stream can assimilate and meet the aquatic life use. It allows a target endpoint for modeling the sediments in Chestnut Creek.

Thank you for your comments on the TMDL study. I would appreciate the opportunity to set down with you and discuss these issues. The next step in the TMDL process is to finalize the TMDL study and send it to EPA for approval. As I stated earlier, the TMDL report will be revised to reflect the BMP efforts you mentioned that are already in place. Once EPA approves the study, the State Water Control Board will adopt the TMDL tables ES1 and ES2 in the Water Quality Management Plan Regulation. We will inform you of this additional opportunity to comment.

Sincerely,

Nancy T. Norton, P.E.
SWRO-TMDL Coordinator

NEW RIVER SOIL AND WATER CONSERVATION DISTRICT
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968 East Stuart Drive
Galax, Virginia 24333
Telephone: (276) 236-7191
Fax: (276) 238-9959

March 1, 2006

Virginia Department of Environmental Quality

At the February meeting of the New River Soil and Water Conservation District Board, the Chestnut Creek TMDL Improvement Plan was discussed. Please find our comments as follows:

*A major concern we have is that in your "plan" the Chestnut Creek Watershed is being modeled to South Fork Holston River. There are vast differences in these areas geographically, by soils and by land use. They are two different geographic provinces, Chestnut Creek being in the Blue Ridge region and South Fork Holston River in the Ridge and Valley region. We feel that this is not an accurate area to study as a model.

*We feel that the agriculture community is carrying the weight for bacterial contamination. In one area of testing, 8% of bacterial contamination was contributed to agriculture, but your plan suggests fencing off 65% of the creeks of the watershed. At the same site, wildlife and pet contributions to bacterial contamination were much higher than agriculture and these were not addressed.

*The agriculture community is carrying the load again with the sedimentation findings. We feel that no credit is being given to the no-till seeding done in this watershed. Most of the cropland in the watershed is not hi-tillage. We also feel that no attention is being given to urban land disturbing activities that are active in this watershed. Urban land disturbing activities contribute significantly to the sediment loss in the watershed. Again, the "model" of South Fork Holston River is not an accurate study as it does not have a municipality in its area. We also feel that addressing disturbed forest land further in the watershed could have an impact on water quality improvement.

*The wildlife impact was not adequately addressed in your plan.

*We would also like to suggest that past water sampling data be studied such as USDA-NRCS Chestnut Creek Watershed Plan and Environmental Assessment August 1996. This will show the improvements in water quality due to other water quality improvement programs that have been completed in the Chestnut Creek Watershed during the last twelve years.

*We would suggest a meeting of your technical advisory committee with local resource people to discuss the problems and possible solutions needed in this watershed.

Thank you,

New River Soil & Water Conservation District

March 9, 2006

Mr. Tim Phipps
New River Soil and Water Conservation District
968 East Stuart Drive
Galax, Virginia 24333

Re: Response to Comments on the Draft Chestnut Creek TMDL Report

Dear Mr. Phipps:

Thank you for the New River Soil and Water Conservation District Board comments about the Draft Chestnut Creek TMDL Report. Your letter reflects a concern that the study use of South Fork Holston River as a reference watershed is inadequate to characterize the conditions in Chestnut Creek. You further comment that the wildlife impact was not addressed in the study resulting in unfair bacteria and sediment reductions assigned to the agricultural community.

In review of available reference watersheds, DEQ approved the use of South Fork Holston River as an appropriate choice. The urban component in Chestnut Creek represents about 6.5% of the land use and the component in South Fork Holston River represents about 1.5% which is a difference of 5%. This is not a significant difference. The sediment delivery rates to South Fork Holston River are similar to those in Chestnut Creek. The similarity results in an ability to predict how much sediment the stream can assimilate and meet the aquatic life use. It allows a target endpoint for modeling the sediments in Chestnut Creek.

Bacteria Source Tracking (BST) results at two stations in the watershed indicate the presence of human, pet, livestock and wildlife sources. The BST results reported in the TMDL report should not be interpreted or used to mean those exact amounts are present from each source. Rather, it confirms the presence of each source. DEQ addresses the wildlife component in Section 11.3.5 of the TMDL Report. Sources other than wildlife will be first targeted for reductions because they are more readily controlled. EPA and Virginia are not proposing the elimination of wildlife to allow for the attainment of water quality standards.

The reduction scenarios that were modeled for the TMDL report did not include site specific information regarding those agricultural practices that reduce bacteria or sedimentation. During the Implementation Plan stage, identifying these sites may show that reduction targets have been met or that reductions should be focused on other land uses. The City of Galax and Forestry

stakeholders need to participate in decisions about the focus of corrective actions to achieve improvements in water quality.

The technical advisory committee for the TMDL study included the New River Soil and Water Conservation District. Local resource staff provided information to MapTech staff and me during the study. A dialogue between all of the stakeholders in the Chestnut Creek watershed needs to be maintained as water quality improvements are implemented.

Thank you for your comments on the TMDL study. The next step in the TMDL process is to finalize the TMDL study and send it to EPA for approval. Based on your comments and comments from the City of Galax, an additional section has been added to Chapter 11 that discusses the BMP efforts that are already in place. Once EPA approves the study, the State Water Control Board will adopt the TMDL tables ES1 and ES2 from the Chestnut Creek TMDL Report into the Water Quality Management Plan Regulation. We will inform you of this additional opportunity to comment.

Sincerely,

Nancy T. Norton, P.E.
SWRO-TMDL Coordinator